Appl. No. 10/534,950

Amdt. dated Sept. 16, 2009

Reply to Office Action of May 27, 2009

REMARKS

If the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, the Examiner is urged to telephone

Aubrey Helms, Jr., Ph.D. at (408) 504-8199 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Reference to paragraph numbers or line numbers for the present invention will be based on the USPTO Published Application 2006/0003077 Al published on January 5, 2006.

Rejections under 35 U.S.C. § 103

Claims 1, 2, 5, and 7-9 are presently in the application.

An objection has been made to claim 1 due to a typographical error. The error has been corrected by substituting "0.7%" for "0,7%".

Claims 1, 2, 5, and 7-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Oles (US 4,145,451) in view of Qiang, Cain (US 5,756,143), and Hamm (US 2003/0203096).

Claims 3-4, 6 and 10 have been previously canceled; claim 1 is currently amended; and claims 2, 5, 7-9 remain as previously presented.

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Claim 1 has been amended to add the element that specifies that the present invention describes a semi-solid acid emulsified mayonnaise-like food. Support for this element may be found in paragraphs [0001] and [0014] of the published application. This is further supported in the "Examples" section where the viscosity of the Applicant's examples are reported to be 198,800 mPa-s (see Example 1, paragraphs [0065]-[0068] and Table 1). [Note: 1 mPa-s = 1cP] A semi-solid dressing is defined by the Japanese Agricultural Standard as having a viscosity greater than 30,000 mPa-s. Therefore, the applicant submits that amended claim 1 is fully supported by the specification.

Section 2143.03 of the MPEP requires that all claim limitations must be taught or suggested. This section of the MPEP states "All words in a claim must be considered in judging the patentability of that claim against the prior art". Applicant respectfully traverses the examiner's previous rejection of non-amended claim 1 based on the Oles patent because Oles does not disclose the content of an esterified starch in the concentration of 1.2 to 2.2% by mass. Furthermore, Oles does not disclose that the esterified starch compound is composed of potato starch or hydrolysate thereof and an alkenylsuccinic acid and waxy cornstarch or hydrolysate thereof and an alkenylsuccinic acid, wherein the alkenylsuccinic acid may be octenylsuccinic acid.

Applicant respectfully submits that amended claim 1 circumvents the examiner's prior rejection based on the Qiang reference because the Qiang reference refers to liquid dressings and not semi-solid dressings, now made

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explicit in amended claim 1. In support of this, Applicant re-submits the 37 CFR 1.132 declaration from Akemi Sato in support of the assertion that the Qiang formulations address the field of liquid dressings and not the semi-solid dressings of the present invention. In the declaration, Akemi Sato describes his reproduction of Table 2 of Qiang "Formula of Thousand Island Dressing" wherein it was confirmed that the viscosity of the Qiang formulation was well below 30,000 mPa-s. Akemi Sato attempted two separate formulations of the Qiang recipe and obtained viscosities of 5360 and 2080 mPa-s respectively.

Semi-solid dressings have disadvantages including the characteristic that the viscosity tends to decrease with time during storage. Liquid dressings do not have such a problem. Additionally, the decrease in the viscosity with the elapse of time has a possibility of causing deterioration in flavor. Previous attempts to address these issues did not produce satisfactory results with respect to viscosity stability, flavor stability, and shape stability (see [0004]). The present invention addresses the issues of the viscosity decrease and deterioration of flavor in semisolid dressings. The Applicants have determined that if the concentration of the esterified compound is less than about 0.1%, the stability of the semi-solid dressing is unacceptable and if the concentration is greater than about 5.0%, the texture (oral solubility) is poor (see [0022]-[0023]). Furthermore, the Applicants have determined that the concentration range is preferably between about 1.2% and 2.2% by mass (see [0022]).

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The octenyl succinate starch disclosed in Qiang is used as a stabilizing agent for the flavored ingredients. The octenyl succinate starch disclosed in Qiang has no effect on maintaining the viscosity of the liquid dressing. The alkenyl succinate starch (potato and waxy cornstarch) of the present invention are specifically added to the formulation to help maintain the viscosity and flavor during long periods of storage (see [0011]). Therefore, Applicants submit that it would not have been obvious to one skilled in the art to adapt the octenyl succinate starch disclosed in Qiang used as a flavor stabilizer to become a viscosity stabilizer as used in the present invention. Furthermore, Qiang does not disclose the use of potato starch or waxy cornstarch as the starch ingredient. One skilled in the art would not be able to appreciate the beneficial effects of the alkenyl succinate starch (potato and waxy cornstarch) of the present invention based on a reading of Qiang.

Hamm discloses potato starch and waxy corn starch in both modified and unmodified forms (see [0032]).

However, Hamm does not disclose the type of modification of the starch or the properties of the modified starches.

Starches may be modified in a wide variety of ways; including acid-treated starch, alkaline-modified starch, bleached starch, oxidized starch, enzyme-treated starch, acetylated starch, and acetylated oxidized starch (see http://en.wikipedia.org/wiki/Modified starch) downloaded on September 14, 2009 by Aubrey Helms, Jr. A copy of the relevant portion of this website has been appended at the end of this paper. Hamm does not discuss the specific method of modification used or the properties of the various modified options. In Tables 5-8 of Hamm, the starch

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component is a modified corn starch (see http://www.canamingredients.com/products/CornStarch ULTRASPE
RSE%20M Spec.pdf) and contains no modified potato starch as claimed by the Applicants. A copy of a PDF file containing the specifications of ULTRASPERSE M and downloaded from the Internet on September 10, 2009 is attached with this reply to the office action. Furthermore, the range of the modified corn starch listed in Tables 5-8 of Hamm are in the range of 3.5 to 4.4 wt%. This is outside the range claimed by the Applicant in amended Claim 1.

Applicant respectfully submits that it would not be obvious to one skilled in the art to combine the esterified compound of Qiang which is used in a formulation where viscosity stabilization is not an issue, with the generic disclosure in Hamm of a "modified" starch with no discussion of the type or properties of the modified starch with the disclosure of Oles to arrive at the specific composition and concentration ranges claimed by the Applicant in amended Claim 1. Therefore, Applicant submits that amended Claim 1 is patentable over the cited prior art.

Pursuant to MPEP 2143.03, claims 2, 5, and 7-9 are dependent from amended Claim 1 and therefore are also patentable.

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INTERNET REFERENCE MATERIAL

Copied from http://en.wikipedia.org/wiki/Modified_starch on September 14, 2009 by Aubrey Helms, Jr.

Modified starch

From Wikipedia, the free encyclopedia

Modified starch is a food additive which is prepared by treating starch or starch granules, causing the starch to be partially degraded. Modified starch is used as a thickening agent, stabilizer, or an emulsifier. Apart from food products, modified starch is also found in pharmaceuticals, paper and many other applications.

Starches are modified for a number of reasons. Starches may be modified to increase their stability against excessive heat, acid, time and cooling or freezing; to change their texture; to decrease the viscosity or to lengthen or shorten gelatinization time.

A modified starch may be an instant starch which thickens and gels without heat; or a cook-up starch which must be cooked like regular starch.

Acid-treated starch (E1401), usually simply called "modified starch", is prepared by treating starch or starch granules with inorganic acids, breaking down the starch molecule and thus reducing the viscosity.

Other treatments may produce modified starch with different E numbers, such as alkaline-modified starch (E1402), bleached starch (E1403), oxidized starch (E1404), enzyme-treated starch (INS: 1405), acetylated starch (E1420), and acetylated oxidized starch (E1451).

Hooffed starch

Modified starch o

The claims, as they now stand, are considered to be in condition for allowance and action to that effect is most earnestly solicited.

Respectfully submitted,

September 16, 2009

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CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being deposited on **September 16**, **2009** with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature

30,090 Req. No.

(NISSHIN2RCEAMENDMENT091609/ca)

PRODUCT SPECIFICATION

ULTRA-SPERSETM M

Label Designation

Source

Modified Corn Starch

Waxy Maize

Physical and Chemical Characteristics:

white

Color

White to Off-

Granular Powder

Form

Granulation

Thru USSS #20 Moisture

>98% 10% maximum

pH (10% Slurry)

4.8 - 7.0

Viscosity (CML-Brabender-113TR) $30^{\circ}\text{C} + 10$ minutes

750 - 1450 BU 1050 - 1450 BU

95°C

Drop from Peak

20% maximum

Microbiological Specifications:

Total Plate Count

10,000/g

maximum

Yeast Mold

E. Coli Salmonella 200/g maximum 200/g maximum

negative negative

Packaging and Storage:

ULTRA-SPERSE M is packaged in multi-ply, Kraft paper bags with a net weight of 50 lbs.. We recommend that ULTRA-SPERSE M be stored in a clean, dry area at ambient temperature and away from heavily aromatic material. The shelf life for ULTRA-SPERSE M is 24 months from the date of manufacture.